

## ABSTRACT

A method of inspecting unevenness of a partition wall surface of a honeycomb structure includes the steps of: allowing a diffusion light to enter from one end face 8 side by a predetermined lighting means 3 and to exit from the other end face 8 side of the honeycomb structure 2 after passing it through the inside of the cells, allowing the exited diffusion light to pass through a translucent screen 4 disposed on the other end face 9 side of the honeycomb structure 2 to act as a transmitted light, projecting a transmitted image 13 by means of the tone of the transmitted light onto the transmitted light side of the screen 4, picking up the transmitted image 13 projected on the screen 4 by an imaging means 5, and analyzing by an analyzing means 6 the gray level of the obtained image to inspect for each cell the degree of the surface unevenness of the partition walls. This method enables easy inspection on the surface unevenness of the partition walls of the honeycomb structure 2.